

Azadirachta indica – Neem Tree

Azadirachta indica, commonly known as the Neem tree is a tropical evergreen related to Mahogany. Native to east India and Burma, it grows in much of southeast Asia and west Africa. A few trees have recently been planted in the Caribbean and several Central American countries. Neem is a medium sized to large tree characterized by its short, straight bole, furrowed, dark brown to gray bark, and dense rounded crown of pinnate leaves.

With an extensive and deep root system, the hardy Neem can grow luxuriantly even in marginal and leached soils. Native to India, it thrives up to an elevation of 1000m. The Neem flowers profusely between February and May and the honey-scented white flowers, found in clusters are a good source of nectar for bees. Neem fruits are green drupes which turn golden yellow on ripening in the month of June, July and August in India.

Outdoors, in locations where temperatures don't drop much below freezing, it may reach up to 15m. It will grow where rainfall is as little as 45cm per year and thrives in areas that experience extreme heat of up to 48°C.

They are reported to live for up to 200 years. Neem is tolerant to most soil types including dry, stony, shallow soils, lateritic crusts, highly leached sands and clays. It is well adapted to soils with pH of 5.0 to 8.5, but grows best on deep, porous well-drained soils with a pH of 6.0 to 6.5. It is moderately tolerant of high alkaline soils with high levels of sodium, carbonates and bicarbonates and has been successfully established on steep, highly eroded sites as well as on degraded soils with calcareous hardpans close to the surface. Neem growth is poor on seasonally waterlogged sites, silty sands, silty alluvial flats, and poorly drained clays as well as dry sands where the dry season water table is below 8m in depth. On soils deficient in zinc and potassium, growth of Neem trees is poor. The growth of Neem appears to be closely related to soil moisture availability. Growth is best on freely drained sites where the water table fluctuates between an approx. depth of 3 to 5m throughout the year.

Every part of the tree is useful, with medicinal, cosmetic and pest inhibiting properties. The bark is used for cosmetics, health care products and medicinal preparations. The leaves are medicinal. The kernel of the neem fruit is crushed to yield an oil which is used chiefly in pest controlling preparations and also in medicinal, cosmetic and health care products. The residue after crushing the kernel is neem cake, which is an excellent organic fertilizer. Even the twigs of the tree are used as toothbrushes for dental hygiene.

So interesting that scientists have yet to come across a more beneficial tree!

Propagation

Neem seed requires no pre-treatment other than soaking overnight.

Sow seed in a good quality potting mix in either a propagating tray or forestry tube. Seed should be planted at a depth of 1.5cm and watered in. Maintain the media in a moist but not damp condition and keep in a warm shady position

Germination should occur in 10 to 21 days, although at times germination can be spasmodic.

If tray planted prick the seedlings out into individual pots or tubes at the second true leaf stage. If planted in tubes, grow on as desired.

Seedlings can be planted out at any stage after they reach at least 7cm although it can be beneficial to grow them on and plant out in the spring after the danger of frost has passed. Neem can take a temperature range from 40°C down to about 4°C. Below 4° plants, particularly young seedlings, can suffer permanent damage.

Neem grows naturally in areas that receive between 450 and 1200mm of rain per year but has been planted and grown successfully in drier regions that receive as little as 200mm annual rainfall. It is at its best in deep, rich, dark soils with lots of nutrients and good water holding capacity, but it is amazing to see how well neem trees grow on the poorest, shallowest rocky slopes as well.

Protect young seedlings against snails and slugs.

